

JEE (Advanced) 2021

03rd October, 2021 (Sunday)

(Paper 1 - 9:00 am – 12:00 pm | Paper 2 – 2:30 pm to 5:30 pm)

A Detailed Paper Analysis by Resonance

After introducing major changes in IIT Admission Process in 2013, on 03-October-2021 (Sunday) JEE Advanced 2021, stage-2 for IIT Admission Process was conducted by IIT Delhi. Top 2.50 Lakh students were eligible through rank in JEE Main 2021, out of which **1.51** Lakh students have filled the JEE Advanced Exam form.

JEE (Advanced) 2021 were conducted in two parts (Paper 1 & Paper 2) by **IIT Kharagpur**. Paper 1 was conducted from 9 AM to 12 PM and Paper 2 was conducted from 2:30 PM to 5:30 PM. Only candidates who appear in both Paper 1 and Paper 2 will be considered for ranking. Results will be declared on **Friday, October 15, 2021** at (jeeadv.ac.in). Category-wise All India Ranks (AIR) of successful candidates will be available on the online portal after the results are declared. The text messages will be sent to the candidates to their registered mobile numbers. The seats across IITs, NITs, IIITs and other Govt. Funded Technical Institutes (GFTIs) will be allocated by the Joint Seat Allocation Authority (JoSAA). All the candidates who are eligible for admission will have to participate in the joint seat allocation process by filling in their choices of the courses. The detailed instructions for filling-in the choices and the seat allotment procedure will be made available by JoSAA through Seat Allotment Brochure (josaa.nic.in)

OVERALL MARKS DISTRIBUTION

The paper pattern was different in comparison to last Year. Both Paper 1 and Paper 2 had almost similar pattern. Each paper had **total of 57 questions**.

In **Paper 1** each subject :

Section 1 had 4 questions of Single Correct Choice type worth +3 marks each and -1 as negative marking.

Section 2 had 6 questions of Stems (Comprehension) NUMERICAL VALUE type (with two decimal places truncate/round-off) worth +2 marks each and 0 in all other cases.

Section 3 had 6 questions of ONE OR MORE THAN ONE type worth +4 marks (with partial marking) each and with -2 negative marking.

Section 4 had 3 questions of NON-NEGATIVE INTEGER type worth +4 marks and no negative marking.

In **Paper 2 Section 1** had 6 questions of ONE OR MORE THAN ONE type worth +4 marks (with partial marking) each and with -2 negative marking.

Section 2 had 3 questions of Stems (Comprehension) NUMERICAL VALUE type (with two decimal places truncate/round-off) worth +2 marks each and 0 in all other cases.

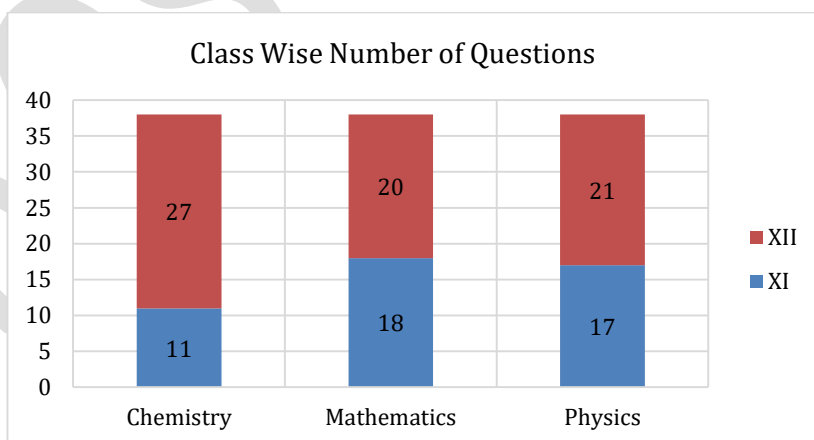
Section 3 had 4 questions of Comprehension based Single Correct Choice type worth +3 marks each and -1 as negative marking.

Section 4 had 3 questions of NON-NEGATIVE INTEGER type worth +4 marks and no negative marking.

Subject wise each subject had 19 questions of 60 marks in total in both Paper 1 and Paper 2.

Both Paper 1 and Paper 2 were of 180 marks each. Total marks for combined Paper 1 and Paper 2 are **360 marks**.

Subject	Class 11		Class 12		Total Percentage	
	No of Questions	Total Marks	No of Questions	Total Marks	Class 11	Class 12
Chemistry	11	32	27	88	29%	71%
Mathematics	18	56	20	64	47%	53%
Physics	17	52	21	68	45%	55%
Grand Total	46	140	68	220	40%	60%

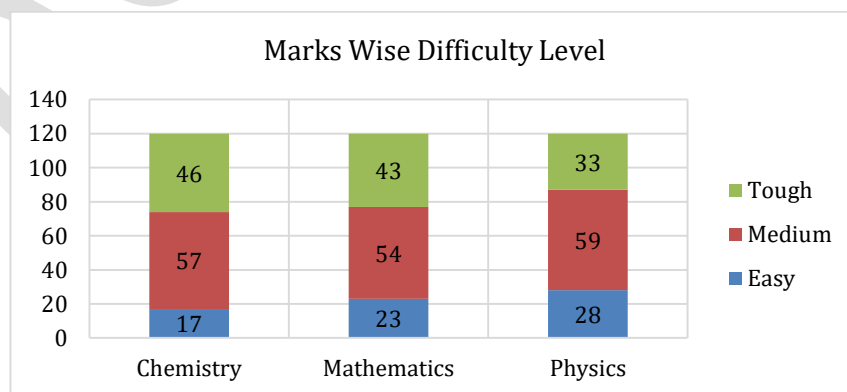
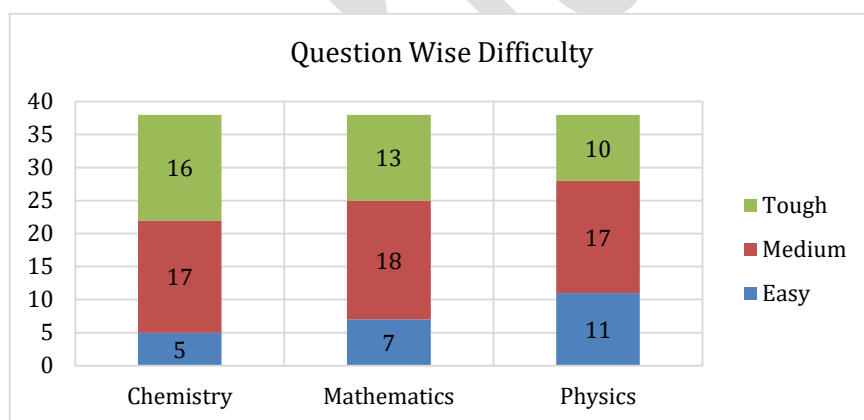


SUBJECT-WISE DIFFICULTY LEVEL ANALYSIS: NO OF QUESTIONS

In this analysis, we have rated every question on a scale of 1 to 3. The ratings are done by expert faculty of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

- 1: Easy
- 2: Moderate
- 3: Difficult

Subject	Easy Level		Medium Level		Difficult Level	
	No of Questions	Total Marks	No of Questions	Total Marks	No of Questions	Total Marks
Chemistry	5	17	17	57	16	46
Mathematics	7	23	18	54	13	43
Physics	11	28	17	59	10	33
Grand Total	23	68	52	170	39	122



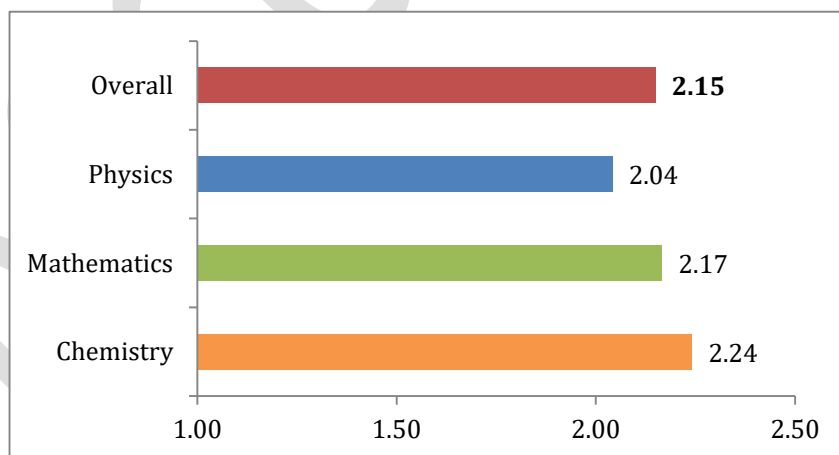
Resonance experts feel that Chemistry and Mathematics paper was on tougher side as compared to Physics. Out of 360 marks, 68 marks paper can be considered of easy level, 170 marks can be considered of medium difficulty level and 122 marks can be considered to be of difficult level by Resonance Team. Overall, difficulty level of paper seemed to be moderate to difficult.

OVERALL DIFFICULTY LEVEL ANALYSIS

In this analysis, we have rated every question on a scale of 1 to 3. The ratings are done by expert faculty of Resonance. The individual ratings are then averaged to calculate overall difficulty level.

- 1: Easy
- 2: Moderate
- 3: Difficult

Subject	Difficulty Level
Chemistry	2.24
Mathematics	2.17
Physics	2.04
Overall	2.15



SUBJECT WISE ANALYSIS

PHYSICS ANALYSIS

Topic wise Allocation of Marks

PHYSICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Physics	38	120	100%
Electrodynamics	12	34	28%
Alternating Current	2	4	3%
Capacitance	2	4	3%
Current Electricity	1	4	3%
Electro Magnetic Field	2	8	7%
Electro Magnetic Induction	3	10	8%
Electrostatics	2	4	3%
Heat & Thermodynamics	4	13	11%
Heat Transfer	1	4	3%
KTG & Thermodynamics	3	9	8%
Mechanics	14	43	36%
Centre of Mass	4	8	7%
Error in Measurement	1	3	3%
Fluid Mechanics & Properties of Matter	3	8	7%
Gravitation	1	4	3%
Rigid Body Dynamics	4	16	13%
Unit & Dimension	1	4	3%
Modern Physics	4	15	13%
Modern Physics	2	8	7%
Nuclear Physics	2	7	6%
Optics	3	11	9%
Geometrical Optics & Physical Optics	3	11	9%
SHM & Waves	1	4	3%
Sound Waves	1	4	3%

CHEMISTRY ANALYSIS

Topic wise Allocation of Marks

CHEMISTRY			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Chemistry	38	120	100%
Inorganic Chemistry-II	9	33	28%
Coordination Compounds	3	11	9%
Metallurgy	1	4	3%
Qualitative Analysis	3	10	8%
p-Block 17-18 Group	1	4	3%
p-block (15-16 Grp)	1	4	3%
Organic Chemistry-I	2	8	7%
Hydrocarbon	1	4	3%
Practical Organic Chemistry	1	4	3%
Organic Chemistry-II	10	32	27%
Aromatic Compounds	3	12	10%
Biomolecules	1	4	3%
Hydrocarbon (Alkane, Alkene & Alkyne)	3	9	8%
Stereoisomerism	1	3	3%
Aldehyde Ketone	2	4	3%
Physical Chemistry-I	9	24	20%
Atomic Structure & Nuclear Chemistry	1	4	3%
Chemical Equilibrium	2	4	3%
Equivalent Concept	4	8	7%
Thermodynamics and Thermochemistry	2	8	7%
Physical Chemistry-II	8	23	19%
Chemical Kinetics	1	4	3%
Electrochemistry	3	8	7%
Solid State	1	3	3%
Surface Chemistry	1	4	3%
Solution & Colligative Properties	2	4	3%

MATHEMATICS ANALYSIS

Topic wise Allocation of Marks

MATHEMATICS			
UNIT & TOPIC NAME	NO OF QUESTIONS	TOTAL MARKS	(%) WEIGHTAGE
Mathematics	38	120	100%
Complex Numbers	2	7	6%
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Coordinate Geometry	9	25	21%
Circle	3	9	8%
Ellipse	1	4	3%
Parabola	3	8	7%
Straight Line	2	4	3%
Differential Calculus	3	8	7%
Application of Derivatives	3	8	7%
Fundamentals of Mathematics	1	4	3%
Fundamentals of Mathematics	1	4	3%
Integral Calculus	8	25	21%
Area under curve	1	3	3%
Definite integration	6	18	15%
Differential equation	1	4	3%
Matrix & Determinants	4	12	10%
Matrices & Determinants	4	12	10%
Permutation & Combination	1	4	3%
Permutation & Combination	1	4	3%
Probability	5	15	13%
Probability	5	15	13%
Trigonometry	3	12	10%
Inverse Trigonometric function	1	4	3%
Solution of Triangle	1	4	3%
Trigonometric Ratio & identities	1	4	3%
Vector and 3D	2	8	7%
Vector	2	8	7%